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Filed 6/9/2001
Attorney docket no. 1043.001US1

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REMARKS

Rejection of claims under 35 USC 103

Claims 1-11 and 13-20 have been rejected under 35 USC 103(a) as being unpatentable over Zloof (5,489,922) in view of Hayashi (JP 08-054980). Claim 12 has been rejected under 35 USC 103(a) as being unpatentable over Zloof in view of Hayashi, and further in view of Iwasaki (2002/0024502). Claims 1, 14, and 18 are independent claims, from which the other claims ultimately depend. Applicant submits that claims 1, 14, and 18 are not unpatentable over Zloof in view of Hayashi, such that all of the pending claims are not unpatentable over Zloof in view of Hayashi or over Zloof in view of Hayashi and further in view of Iwasaki.

Applicant concentrates on one aspect of the claimed invention that is common to all of claims 1, 14, and 18 – that relative movement (of a housing of the pointing device or a finger glove of the pointing device, depending on whether you are looking at claims 1 and 14 or claim 18) is detected against an external surface that is external to the pointing device of claims 1, 14, and 18. The Examiner indicates that Zloof does not show this feature of the claimed invention, and therefore relies upon Hayashi as showing this feature. The Examiner thus modifies Zloof in view of Hayashi to yield the claimed invention.

What the Applicant contends is that Zloof is not properly combinable with Hayashi, however, such that the claimed invention is indeed patentable over the Zloof in view of Hayashi (and further in view of Iwasaki). In particular, Applicant very much emphasizes that modifying Zloof per Hayashi renders Zloof unsatisfactory for two of its intended purposes. This is now discussed in detail.

Modifying Zloof per Hayashi renders Zloof unsatisfactory for a first intended purpose

The Examiner says that modifying Zloof so that relative movement of a housing or a finger glove is detected against an external surface external to the pointing device of Zloof would

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“implement an optical mouse having [an] optical sensor to detect the X and Y directions and connected to [a] finger as taught by Hayashi into the system having the . . . housing of Zloof.” (Office Action, p. 3, and also pp. 5-6) Zloof so modified “would detect the migration direction and movement magnitude [in relation to] the optical pattern in the mouse pad.” (Id.) So, essentially, combining Zloof with Hayashi means that you get a finger-worn pointing device, relative movement of which is detected against an external surface, specifically a mouse pad having an optical pattern.

However, Applicant very much contends that the resulting pointing device, in which the housing/finger glove’s relative movement is detected against an external surface external to the pointing device, renders Zloof unsatisfactory for its intended purposes. Let’s look at one particular intended purpose of Zloof first. An “object of the present invention [in Zloof] is to provide a computer interface device [i.e., a pointing device] *that does not require a planar work surface.*” (Col. 2, ll. 8-10) Zloof thus satisfies a stated need in its background section, which is “a need exists for a remotely operated mouse-type device that . . . *does not require an additional work surface for use.*” (Col. 1, ll. 65-67) It should be obvious, then, why modifying Zloof in view of Hayashi as done in the Office Action renders Zloof unsatisfactory for this stated intended purpose.

That is, the idea in Zloof is that you have a pointing device that does *not* require an additional work surface, like a planar work surface. However, if you modify Zloof in view of Hayashi as has been done in the Office Action, then you *are required to use* an additional work surface, such as a planar work surface like a mouse pad. This is because the claimed invention requires “an external surface” in relation to which relative movement is detected, and the main reason why you’re combining Zloof per Hayashi in the first place is to get this external surface relational movement detection.

But, Zloof says that one object of its invention is to *not have such an external surface*, as to which the claimed invention is limited. *So you can’t modify Zloof in view of Hayashi so that*

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the pointing device of Zloof detects relative movement thereof against an external surface – i.e., you can't combine Zloof and Hayashi as has been done in the Office Action to yield the claimed invention. This is because if you were to modify Zloof as in the Office Action, Zloof becomes unsatisfactory for its stated intended purpose. In summary, (A) Zloof's intended purpose is to not use an external surface; (B) the claimed invention requires an external surface; therefore, (C) modifying Zloof per Hayashi so that Zloof uses an external surface like the claimed invention renders Zloof unsuitable for its intended purpose.

Modifying Zloof per Hayashi renders Zloof unsatisfactory for a second intended purpose

Another “object of the present invention [in Zloof] is to provide a computer interface device [i.e., a pointing device] *that does not interfere with the keyboard operator's hand movements near the keyboard.*” (Col. 2, ll. 14-16) This object of the invention of Zloof is not that self-explanatory, so let's go to the background section in Zloof to see what it means. Zloof notes that

A problem with the mouse-type devices is that the mouse is used in connection with a keyboard for data input. As a result, the user must repeatedly move his hand between the keyboard and *the computer mouse work surface*. . . . Therefore, *a need exists for a mouse-type computer interface device that does not require the user to move his hand from the keyboard to a remote location in order to control the computer mouse*

(Col. 1, ll. 33-45) Now we see what Zloof means by this second object of the invention – that you want to have a pointing device that does not require a user to move his or her hands away from the keyboard to use the pointing device. For instance, with a mouse, you have to move your hands away from the keyboard to use the mouse, because the mouse is on a separate “computer mouse work surface,” which is a “remote location” from the keyboard. So it should be obvious here, too, why modifying Zloof in view of Hayashi as done in the Office Action renders Zloof unsatisfactory for this stated intended purpose.

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That is, the idea in Zloof is that you have a pointing device that does not require that you move your hands away from the keyboard to a remote location to use a pointing device on a separate external work surface. However, if you modify Zloof in view of Hayashi as has been denote in the Office Action, then you are again *required to take your hands away from the keyboard to use the pointing device* in relation to an external work surface, such as a computer mouse work surface, since the claimed invention requires “an external surface” in relation to which relative movement is detected (and the main reason why you’re combining Zloof per Hayashi is to get this external surface relational movement detection). But, Zloof says that one object of its invention is *that you don’t have to take your hands away from the keyboard to use a pointing device in relation to an external work surface. So you can’t modify Zloof in view of Hayashi so that the pointing device of Zloof detects relative movement thereof against an external surface, because that means you now have to take your hands away from the keyboard to use the pointing device in relation to the external surface, against the intended purpose of Zloof.* That is, you can’t combine Zloof and Hayashi as has been done in the Office Action. Indeed, as previously mentioned, the Examiner says that if you modify Zloof per Hayashi, you can now detect movement in relation to the optical pattern in a mouse pad (see Office Action, p. 3) – but this means that Zloof no longer satisfies one of its objects, which is to not have to move your hands to reach such a “computer mouse work surface.”

Applicant thus notes that “[i]f the proposed modification would render the prior art invention being modified unsatisfactory for its intended purpose, then there is no suggestion or motivation to make the proposed modification.” (MPEP sec. 2143.01) That is, “the proposed modification cannot render the prior art unsatisfactory for its intended purpose.” (Id.) These are important principles in the present patent application. Zloof and Hayashi are combinable to yield the claimed invention – but by modifying Zloof, Zloof no longer works for two of its intended purposes: the first being providing a pointing device that does not require a separate planar work surface, and the second being providing a pointing device that does not require a user to move his

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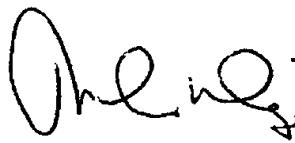
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or her hands away from a keyboard to use the pointing device. If Zloof is modified to yield a pointing device that detects relative movement of the pointing device in relation to a mouse pad or other external surface, then Zloof is no longer suitable for either of these purposes. For these reasons, then, Zloof and Hayashi are not combinable, such that the claimed invention is patentable over Zloof in view of Hayashi.

Conclusion

Applicants have made a diligent effort to place the pending claims in condition for allowance, and request that they so be allowed. However, should there remain unresolved issues that require adverse action, it is respectfully requested that the Examiner telephone Mike Dryja, Applicants' Attorney, at 425-427-5094, so that such issues may be resolved as expeditiously as possible. For these reasons, and in view of the above amendments, this application is now considered to be in condition for allowance and such action is earnestly solicited.

Respectfully Submitted,



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Date

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